Newsletter of the North American Mycological Association

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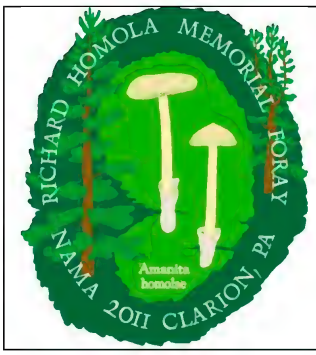
NAMA 2011 FORAY

Dr. RICHARD HOMOLA Memorial Foray

SOLD OUT!



Early registration results in sell outs for the Ascomycetes Workshop and the Annual Foray ☹ There will be 20 walks and papermaking and cultivation workshops During the Foray…don't wait too long to sign up!

Southwest Regional Foray Burned out! ☹ ☹ ☹ ☹

The Foray Committee and Ann Bornstein sadly report that, due to the extensive forest fires in Arizona, the recently authorized NAMA Regional Foray will have to be cancelled for 2011. Hopefully, the opportunity to conduct the foray in 2012 will be possible.

With the possibility of post fire fungi high should NAMA be able to reschedule the Regional Foray in Arizona in 2012 and this year's Annual Foray honoring Richard Homola, an interesting article on the subject found. The article, *Postfire Fungi*, by Richard I. Homola and Sandy Bartell, Department of Botany and Plant Pathology, University of Maine, Orono in 1980 is reprinted from *McIlvania: Journal of American Amateur Mycology*, Volume 4, Number 2. The article was introduced by Walter Litten, then editor of *McIlvania* as follows:

Being caught in a forest fire is even more dangerous to health than personally smoking the cigarette that may have started the fire. Whether ignited by carefree visitors from the big city, by beery local bumpkins, by purposeful silviculturists as part of management plan, or by a stroke of lightening in a dry time, the result is one that certain organisms may have been waiting for, including some fungi.

The article begins on page 4.

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Thank you for the positive and constructive comments received on NAMA's electronically delivered issues. For those of you that prefer to print out the Mycophile and save it, the margins have been altered to permit easy hole punching.

As NAMA moves away from printing the *Mycophile*, the savings will be redirected to other educational efforts to benefit the membership. To receive the newsletter electronically, send your email address to Membership Secretary Ann Bornstein at: annstitcher@charter.net

Thanks again to all the clubs that share their Newsletters with us.

Want to read more about mycological matters?

In addition to NAMA and your local affiliate club, subscribe to:

Fungi magazine www.fungimag.com

Mushroom: The Journal of Wild Mushrooming
leon@mushroomthejournal.com

FROM THE PRESIDENT

In early May my local club had one of its first forays in a state preserve in Southeast Minnesota, near the village of Elba. It was the annual event we hold over a weekend and it's always well attended. This year the weather did not cooperate, as it was in the 40's, raining and windy. Nevertheless, our enthusiastic foragers stoically trudged on and spent several uncomfortable hours hiking up and down hills, through duff and clinging vines, and across streams in search of the ever elusive Morel. But their efforts paid off, as most participants found a goodly number of Morels. Such determination confirms once again that mushroomers are a hardy bunch not easily distracted from their goals and more than ready to brave adverse weather and circumstances to search out interesting fungi--some of which even turn out to be good edibles. According to early reports from several locations, the spring mushroom season has been exceptional; the Morel harvest has been plentiful and--given the widespread and (unfortunately) excessive rainfall--many areas of North America should be productive and mushroomers can likewise expect to experience good results.

On another subject, the electronic delivery of the newsletter is meeting its-hoped for cost-saving goals, which means that funds can be redirected to other important NAMA projects; among these – after a hiatus of several years – is the re-publication of our club's prestigious journal, McIlvainea, in hard copy. This change will hopefully be realized next year. (Online viewers note: though the hard copy will be available to members, the McIlvainea will continue being available for viewing on the club's web page.) In the interest of improving member communications, the NAMA Directory of membership will also be available electronically. Apart from lowering costs, electronic delivery is more practical and should deliver a directory more up-to-date and so more useable.

Lastly, I am pleased to relate that the Plischke family of the Western Pennsylvania Mushroom Club has announced that the 2011 Annual Foray has sold out; the total numbers of registered participants is around 240. John, Becky, John III and Kim have done a wonderful job of preparing for and organizing the foray. It no doubt will be among NAMA's interesting, exciting and rewarding annual gatherings. This year the Plischkes have managed to bring together a large and exceptionally talented group of presenters. Any and everything you ever wished to learn about mycology and related subjects will be covered in the scheduled presentations and field trips.

In closing, we wish you the best of success this year during your adventurous trips into the wilds of nature in search of your mushroom bounty.

Bob Fulgency

Moving?

Please send your new address **two weeks** before you move to:

Ann Bornstein
NAMA Membership Secretary
61 Devon Court
Watsonville, CA 95076-1160
annstitcher@charter.net

Otherwise – you may not be getting your newsletter for a while.

NAMA is a 501©(3) nonprofit, charitable organization. Contributions to support the scientific and educational activities of the Association are always welcome and may be deductible as allowed by law. Send contributions to:
Judith McCandless,
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330 Wildwood Place
Louisville, KY 40206-2523

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FORAYS AND ANNOUNCEMENTS

NAMA Regional Foray Limited to 40 participants Register now!

WILDACRES

The fourteenth annual Wildacres Retreat will be held in September this year (22-25). Dr. Andrew Methven will return as Chief Mycologist. Registration continues to be $215.00 per person, double occupancy. Registration form and additional information is available on NAMA's web site www.namyco.org.

Other Forays of interest to NAMA members: Northeast Mycological Federation, 35th Sam Ristich NEMF Foray at Paul Smith's College, in Paul Smiths, New York, August 11 thru 14; www.nemf.org/files/2011/2011.html. Connecticut-Westchester Mycological Association, 33rd Clark Rogerson Foray Hebron, Connecticut, September 2 thru 5; www.comafungi.org . Asheville Mushroom Club, Fall Fungi Weekend, YMCA Blue Ridge Assembly, Black Mountain, North Carolina, September 9 thru 11; www.ashevillemushroomclub.com. Telluride Colorado Festival, August 18 thru 21; www.shroomfest.com.

Newly added: Mycological Association of Washington D.C., Camp Sequanota, near Jennerstown, Pennsylvania. September 23-25. Open to NAMA members. Registration is $180, or $145 per person double occupancy. Contact: www.mawdc.org

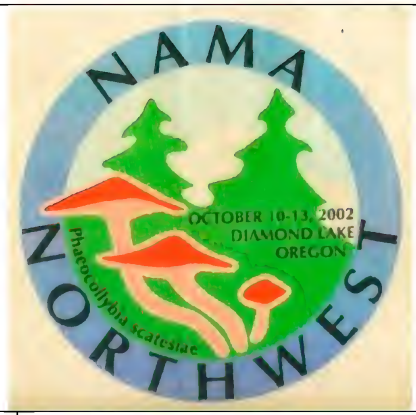
MEET YOUR *NAMA* COMMITTEE: ARTS

The NAMA Arts Committee is one of the smallest with four members. Martha Gottlieb is the Chair, assisted by Louise Freedman, Marie Heerkens, and Irene Lincoff.

When requested by the Foray organizers, the Arts Committee offers various designs for use in marketing, and placement on T-shirts or other items for foray attendees.

The selection of design may be based on locally common "endemic" or unusual mushrooms, or a mushroom named for a mycologist being honored. Two of the illustrated logos honor mycologists - Kit Scates-Barnhart and Sam Ristich. Two illustrate special mushrooms to the locality. This year's foray honors Richard Homola with the Amanita named after him.

Thanks to the diligent, hard work of the Arts Committee the designs appear spot on!



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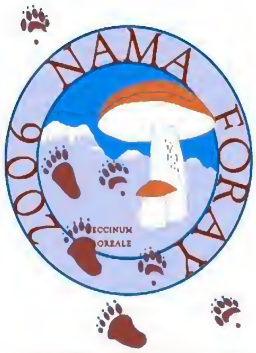
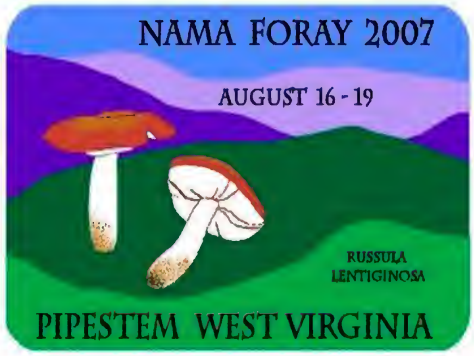


AUGUST 17-19
HINTON ALBERTA



Postfire Fungi [1980]

by Richard I. Homola and Sandy Bartell; Department of Botany and Plant Pathology; University of Maine, Orono

On July 17, 1977 lightning started a forest fire that burned over 3,500 aces in the southern part of Baxter State Park and adjacent land belonging to the Great Northern Paper Company. The following May we went out to look at what the fungi were up to with the vascular plants knocked out (at least above ground). We continued visiting the area through September, 1979. We found species known only from charcoal and burned soil. We also found others that are not that restricted but nevertheless seems to fruit well in the scene of devastation.

More species were found of ascomycetes that fruit only on burned substrates than basidomycetes that appear thus restricted. Of ascomycetes not specialized for burns, the common morel (*Morchella esculenta* Pers. ex St. Amans) was more abundant in the burn that first May than usual in Maine, a state that is no match to Michigan or the Pacific Northwest for morel festivals. A good morel year was anticipated for the same area in 1979, but no such luck could be shared with our many mycophagist friends. The false morel (*Gyromitra esculenta* (Pers. ex Fr.) Fr.), another ascomycete not restricted to burned areas and widespread in our state, was fairly common in the burn both years. So were the familiar *Aleuria aurantia* (Fr.) Fuckel and *Peziza vesiculosa* Bull. ex St. Amans.

Of ascomycetes that do seem to need fire to fruit, the first to appear by mid-May of 1978 was the small, brown, stalked cup of *Geopyxis carbonaria* (Alb. & Schw. ex. Fr.) Sacc., great masses of which appeared on the burned soil for a whole month. When it declined in mid-June, it was replaced by another and prettier fire-loving stalked cup, this one bright pink to red, *Tarzetta rosea* (Rea) Dennis [now *Rhodotarzetta rosea* (Rea) Dissing and Siversten]. It remained the dominant summer ascomycete of the area. Not one carpophores of either of these two species was found the following spring or summer.

What did appear on the burned acres in June of 1979, nearly two years after the fire as well as the first year, were two other brightly colored discomycetes, the tiny pink to orange *Pyronema omphalodes* (Bull. ex St. Amans) Fuckel and right with it the bright orange *Anthracobia melaloma* (Alb. & Schw. ex Fr.) Boud. *Pyronema* is commonly found on sterilized soil in greenhouses. Here it grew confluently in small patches among mosses. Less conspicuous than these bright dots were the scattered small patches of the black *Plicaria trachycarpa* (Currey) Boud [now *Peziza trachycarpa* Curr.]. None of these three latecomers to the scene of the fire was as abundant as the stalked cups of the first year.

One that was harder to notice the first year than those but was actually rather common in 1978 around the burned stumps and roots has more complex requirements. It is dark brown and its flat fruit body adheres closely to the substrate by rhizoids, hence *Rhizinia undulatum* Fr. ex Pers [now*Rhizina undulata* Fr.]. Apparently rhizinia spores need fire for germination, as do jack pine seeds. But fire is not enough. *Rhizina* parasitizes the roots of a variety of conifer seedlings. It quickly exhausts that substrate. When it runs out of host tissue, it will not fruit again until after another fire. It was nowhere to be seen in 1979. *Rhizina* has a common name: the tea cup fungus. What is the connection? The connection is British. The fungus is found where a wood fire boiled water for tea.

Three great European mycologists each named a big peziza characteristic of burned areas. Our fire in Maine yielded all three of them in small quantities in the summer of 1978: *Peziza echinospora* Karsten, *Peziza petersii* Berkeley, and *Peziza praetervisa* Bresadola.

By far the most abundant basidiomycetes in the burn were three that do not occur on unburned substrates: *Pholiota highlandensis* (Pk.) A.H. Smith & Hesler, *Psathyrella carbonicola* A.H. Smith [a synonym of *Psathyrella pennata* (Fr.) A. Pearson & Dennis], and *Myxomphalia maura* (Fr.) Hora. The pholiota was the most abundant by weight and numbers. The psathyrella fruited at the same time. M. maura came later, in September and October of 1978, at which time it was the most abundant of all the higher fungi in the area. At the same time it was also fruiting on burned conifer stumps many miles away on the coast at Mount Desert Island. Two yet unidentified species of the genera *Coprinus* and *Galerina* we collected at Baxter are clearly characteristic of burned habitat. *Hygrophorus spadiceus* (Fr.) Fr. [now *Hygrocybe spadicea* (Scop.) P. Karst.], a species we have previously collected only in blueberry fields that have been pruned the previous year by burning, also appeared in the Baxter burn.

Along with that hygropphorus the burn also produced the less specialized and far more familiar *Hygrophorus conicus* (fr.) Fr. [now *Hygrocybe conica* (Schaeff.) P. Kumm.], a species we have likewise found alongside *H. spadiceus* in the blueberry fields. The honey mushroom, *Armillariella mellea* (Vahl ex Fr.) Karst. [*Armillaria mellea* (Vahl) P. Kumm.], fruited profusely at the bases of the burned stumps, just as it normally does at

the bases of unburned stumps. *Schizophyllum commune* Fr., a very common little white, furry agaric with split gills, struck us as exceptionally beautiful when set off by the blackened logs. Those charred logs also bore lots of *Panus rudis* Fr. [*Lentinus strigosus* Fr.], *Irpex lacteus* (Fr. ex Fr,) Fr., and an unidentified Gloeophyllum.

Little is known about why certain fungi appear on recently burned terrain. After a fire many physical factors are altered. Because the large trees are destroyed and because of the black ground surface, temperature goes up considerably. Humidity generally goes down. Fires release the mineral elements from the living tree and return them to the soil, which gets a large increase of some of them. Decreased are the depth of litter and the amount of organic content. The burned Baxter Park organic horizons were less acid than the unburned. All these factors govern the plant succession. There is now less completion for the new invaders of the barren forest floor. Spore germination in the first place could be affected by any of these factors and by the fire itself. All this could well account for the change in fungal flora.

More work is needed to understand more fully the role of fire in the ecosystem. As interesting post-fire organisms, the higher fungi can help our insight. For the person whose thoughts turn soon to economics, the higher fungi and their response to fire can assume importance because as indicators of nutrient availability, as mycorrhizal associates of higher plants, or as their pathogens, they can provide hints for the management of our forest resources.

The bright pink to red stalked cup *Tarzetta rosa* [*Rhodotarzetta rosea*] was the dominant ascomycete the next summer after the fire but couldn't be found at all the following summer.

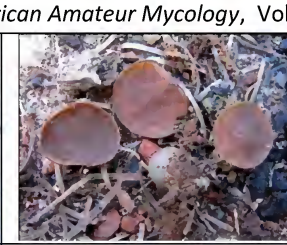
Photo from original article courtesy of Richard Homola

[nomenclatural changes according to *Index Fungorum* that have occurred in the 31 years since the article was written have been identified by Dr. Michael Beug, PhD] editor

Reprinted with permission from *McIlvania: Journal of American Amateur Mycology*, Volume 4, Number 2 1980.

Black 'Burn' Morel

Geopyxis carbonaria



Peziza praetervisa

Pholiota highlandensis

Photos courtesy of Dr. Michael Beug

Photos of 2011 Foray needed. Please send photos for use in the post-Foray issue of the *Mycophile* to Bruce_Eberle@msn.com. Names of individuals/speakers/mushrooms pictured would be helpful.

Book Reviews

Chanterelle Dreams, Amanita Nightmares: The Love, Lore, and Mystique of Mushrooms

Greg A. Marley
2010 / ISBN 978-1-60358-214-8
$17.95 (softcover)

Greg Marley is fascinated by the interconnectedness of life and the ways in which fungi fit into the scheme of things. I first heard about *Chanterelle Dreams* while at the Girdwood (Alaska) Fungus Festival. A pilot who works out of Anchorage, but lives in Maine (how's that for a commute?), told me

about two books written by back-home friends of his, suggested that they were good candidates for reviews. After the Girdwood festival, I went to Petersburg (also Alaska) for the Tongass Rainforest Festival. While out collecting specimens for my identification workshop, we came upon some very nice *Elaphocordyceps ophioglossoides* growing from *Elaphomyces* truffles in one of the local old-growth spruce-hemlock forests. It proved to be a perfect prop and discussion-starter for a field trip I led the following day for the Petersburg High School advanced biology class, which happened to be studying connectedness in ecosystems. The cordyceps is a parasite on the truffle, the truffle is an ectomycorrhizal partner of the forest trees and provides food for a variety of small mammals such as the northern flying squirrel. In other parts of the Pacific Northwest, the squirrel is a major source of food for the northern spotted owl, and the spotted owl's habitat requires large old nest-trees that rely on mycorrhizal fungi such as *Elaphomyces* for their livelihood (the squirrels also nest in trees). Connections. Now, back to the book. *Chanterelle Dreams* arrived in the mail after I returned home from my Alaska adventures. As I was making my inaugural read, I was amazed to find, near the end of the introduction, a story about *(Elapho)Cordyceps ophioglossoides*, *Elaphomyces*, symbiotic connections to hemlock trees, and northern flying squirrels. Connections.

Chanterelle Dreams is organized in six parts, with one to five chapters per part: I-Mushrooms and Culture (a comparison of mycophilic and mycophobic societies); II-Mushrooms as Food (taxonomy, description, look-alikes, caveats, habitat, preparation, recipes, and preservation of Clyde Christensen's "foolproof four" [morels, puffballs, sulfur shelf, and shaggy mane], chanterelles, king bolete, and the genus *Agaricus*); III-Dangerously Toxic, Deadly Interesting (mushroom poisoning overview, deadly amanitas, false morels, angel wings, and poison pax); IV-Mushrooms and the Mind: The Origin of Religion and the Pathway to Enlightenment (fly agaric, plus psilocybes and the CIA); V-Mushrooms within Living Ecosystems (humongous honey fungi, fairy rings, fungi that glow in the dark, truffle-eating creatures, and wood-peckers and forest health); and VI-Tools for a New World (mushroom-gardening). Illustrations consist of 16 good-quality, color photographs, depicting various species that are presented together in one glossy-paper section.

A number of other authors have produced generally similar books aimed at making fungi accessible to the general population, including Clyde Christensen (*Molds, Mushrooms, and Mycotoxins; The Molds and Man*), Sara Ann Friedman (*Celebrating the Wild Mushroom: A Passionate Quest*), Nik Money (*Mr. Bloomfield's Orchard*), R.T. and F.W. Rolfe (*The Romance of the Fungus World*), Elio Schaechter (*In the Company of Mushrooms: A Biologist's Tale*), and George Hudler (*Magical Mushrooms, Mischievous Molds*). As you might expect, there is a fair amount of overlap in the stories the authors relate. But, also as you might expect, no two of them are quite the same, either in coverage or style and tone. Thus, some of Marley's stories will be familiar to many readers while others likely will be new to most, particularly the more recent ones. But, even in the cases where the content is familiar, Marley's take often differs from those that have covered the same ground before. The following passages give a sense of his perspective.

"Our relationship with the world of fungi is defined by a vast gulf of ignorance and lack of awareness. We don't see what lies before us, and we know little about what we do see."

"This kind of story (the cordyceps tale) -- and the natural connections it illustrates -- brings mushrooms to life for me. Stories make the abstract real, build familiarity, and transform understanding from a vague recognition of separate elements seen on the forest floor to an inkling of the dynamic and intricate web of relationships that move in choreographed dance steps in a natural world we rarely glimpse."

(In the 1970's,) "I bought my first mushroom field guide ... and began in earnest to untangle the stories of these fascinating and mysterious forest dwellers. More than 35 years later, I find several lifetimes of untangling still ahead."

"Always keep your hunger for knowledge ahead of your hunger for mushrooms."

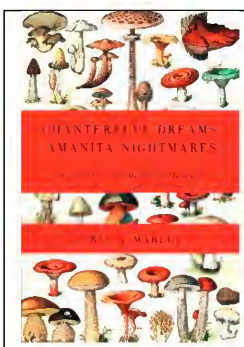
"Cultivate a patient attitude and be comfortable with failure in the pursuit of knowledge." (Although he is talking about growing mushrooms here, he could just as well have been referring to mushroom identification.)

The text is approachably written and mushroom-people are likely to find the material quite engaging and informative. Unfortunately, some bits of misinformation found their way into the book. Although most of these are relatively minor things that might not be noticeable or matter to most readers, a few examples seem worth mentioning.

Our understandings of mushrooms invariably are colored by where we live and where we hunt them. Thus, it should be noted that some of the information, while true for Maine and other parts of the Northeast, aren't equally valid in other areas. For instance, in discussing angel wings, Marley cites their occurrence on conifer wood as the most critical feature distinguishing them from oyster mushrooms. However, oyster mushrooms (principally *Pleurotus pulmonarius*) do occur commonly on conifer wood, at least in the Rockies and points west.

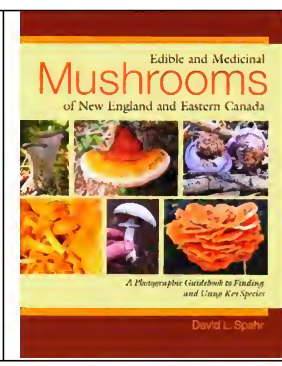
In describing amanitas, it is stated that all of them have white or whitish gills and (in one place, but not in another) a ring on the stipe. In fact, there are amanitas with orange, yellow, pink, and green gills, although most of these do not occur in North America (*Amanita jacksonii* does though), and many amanitas lack rings. Lignin is incorrectly described as a carbohydrate and polymer of sugars. The decline, in northern Europe, of mushrooms produced by ectomycorrhizal fungi apparently as a consequence of human-increased levels of mineral nitrogen in the environment is suggested to be due to the trees no longer needing the fungi. It is far more likely to be the result of physiological effects on the fungi themselves.

But, as I said, such concerns are relatively minor things and I suspect that not many readers will be bothered by them. Thus, I recommend *Chanterelle Dreams* to anyone with an interest in mushrooms or as a gift for a friend who might develop the interest. It is an enjoyable and informative read.
Steve Trudell



The International Association of Culinary Professionals awarded Chanterelle Dreams, Amanita Nightmares by Greg Marley the *Jane Grigson Award*.

The Grigson Award is given to a book that puts food in a wider cultural context, using diligent but not pedantic scholarship, and presented in quality prose.


Edible and Medicinal
Mushrooms
of New England and Eastern Canada
A Photographic Guidebook to Finding and Using Key Species
David L. Spahr

Edible and Medicinal Mushrooms of New England and Eastern Canada

David L. Spahr
2009 / ISBN 978-1-55643-795-3
U.S. $19.95 / CAN $24.95 (softcover)

This is the second of the Maine-authored mushroom books recommended to me in Girdwood by my pilot friend. As the title indicates, it focuses on the commoner edible and medicinal mushrooms of the Northeast (or Southeast, if you prefer a Canadian geographic bias). It offers information necessary for identifying the mushrooms and general guidance on how the different species should be prepared to make the most of their individual culinary qualities. It does not, however, claim to be a field guide, and it does not provide specific recipes.

The book is organized in six sections, each of which contains from one to 10 chapters. Section I-Mushroom Collecting Basics (what is a mushroom; rules, tips, and equipment for collecting them; and how to take their pictures); Section II-Mushrooms with Gills, Ridges, or Teeth (golden chanterelle, craterelluses both golden and black, hedgehogs, *Agaricus arvensis* and *A. campestris*, parasol, shaggy mane, matsutake, blewit, and oysters); Section III-Mushrooms with Pores (king bolete, two-colored bolete, maitake, sulfur shelf, and Dryad's saddle); Section IV-Other Mushrooms (morels both yellow and black, puffballs, lobster, and aborted entoloma); Section V-Medicinal Mushrooms (reishi, artist's conk, turkey tail, and chaga); and Section VI-Further Uses of Mushrooms (how to prepare them for eating, some propagation tips, and dyeing with mushrooms).

The species treatments in Sections II through V are given chapter status and presented in a standardized format including a brief introductory paragraph, macroscopic description of cap, gills/tubes/teeth, stem, flesh, spore color, when and where to find them, preparation, and comments. The text is augmented by typically six or more photos, usually ones of the subject species (singular or plural depending on chapter), but sometimes of look-alikes or the subject species being prepared for the table. The text is clearly written and largely avoids technical jargon. It emphasizes Spahr's personal experience and allows for the experiences of others being different from his. The photos vary in quality - some are excellent, the best being those of large mushrooms or groups of mushrooms in their natural setting, and taken from snapshot distance. The close-ups are not as well done. While serviceable, they are lacking aesthetically. Most are taken back at the ranch on a deck, patio, or similar background, many in direct sunlight causing washed-out highlights and colors and distracting shadows. Many of the compositions are basically dump-the-basket ones and depth-of-field is insufficient in some cases. Including multiple illustrations of each species is a good idea, however some of the photos show the same, or nearly identical, mushrooms and don't really illustrate the variability of the species. The photos are reproduced at various sizes, which add visual interest, but some are so small that it is difficult to appreciate the features being illustrated.

For me, the best aspect of the book is the discussion of edibility and how to prepare mushrooms for the table (despite the fact that I rarely eat mushrooms and virtually never prepare them myself). Spahr's characterization of different species as "white wine" or "red wine" types concisely provides valuable information on the types of dish in which they should be used and his emphasis on matching the style of preparation to the characteristics of the particular species is spot on. Although some of the characterizations and advice are nearly the same for many of the species and so get redundant when reading cover-to-cover, repetition of the information makes sense for someone using the book as a reference for a particular species. The lengthy descriptions of how to prepare tinctures and decoctions of medicinal species, however, should have been put in an appendix or in the preparation chapter rather than being repeated.

The information on the mushrooms is generally accurate and, commendably, Spahr often qualifies his statements as applying in his home area, allowing for things to differ elsewhere. There are, however, a few inaccuracies. For instance, discussion of the aborted entoloma should have been brought up to date with our current understanding of the phenomenon (largely based on a 2001 paper by Daniel Czederpiltz *et al.* in *Mycologia*). Although details of the functional relationship have not yet been worked out, it is clear that the aborted blobs (carpophoroids) are honey mushrooms, although apparently permeated with entoloma hyphae. Thus, the traditional common name 'aborted entoloma' appears to be a misnomer. The precaution that you should never let toxic mushrooms touch edible ones is baseless, although it certainly is advisable to keep the two types separated to avoid having one of the bad ones inadvertently slip into your supper. In many of the discussions of dyeing, ammonia is incorrectly referred to as a mordant. Actually it is used to control the pH (acidity/alkalinity) of the dye solution.

Wisely, Spahr is careful to warn readers not to rely on just this book for identifying mushrooms for the table. Books that focus only on target species, be they edible, dye-worthy, or medicinal ones, don't provide the overall perspective necessary for competence in identification and safe use. Thus, users of this book would be well advised to augment it with broader-scoped guides such as *Mushrooms of Northeastern North America* (Bessette, Bessette, and Fischer) and *Mushrooms of Northeast North America* (Barron). With that caveat, I heartily recommend this book to anyone interested in finding and eating Northeastern mushrooms.
Steve Trudell

Fungi Selecti Picti
Between Linnaeus and Darwin

In the sweet decades between the false security of Linnaeus' name giving and the scary uncertainty of Darwinian evolutionary change, science and theology were in accord. The Creation was finished. God had made it all, and it was immutable.

In this comfortable early nineteenth century belief lived an artist and illustrator, Orra White Hitchcock. She raised eight children, and she assisted her moody but brilliant husband Edward. On their honeymoon in 1821 they produced a small album of watercolors of the mushrooms of western Massachusetts; Fungi Selecti Picti. [www.katranpress.com/typography40.html] She painted the mushrooms, he contributed the notes. The work is charming. Small vignettes, many to a page, are carefully observed and executed. There are enough mysterious entities in these plates to make you wonder at times what she was looking at, but in general the faces are familiar. The Reverend Edward Hitchcock, who was a geologist not a mycologist, supplied the names. A surprising number of those names are still good.

Fungi Selecti Picti is part of an exhibition of Orra's work hanging at the Mead Museum of Art at Amherst College, Amherst, MA. [www.amherst.edu/museums/mead/programs/2011exhib/owh/OWHcklst] The show closed at the end of May, but a small facsimile of the album with all the plates and notes can be bought for $5.00 from the Smith College Library. The album itself will be available to those interested, in the Rare Book Room of the Smith College Library.

Orra was a scientific prodigy who taught at Deerfield Academy in her teens. Her work, as the first American woman botanical illustrator, made her famous. In large part the exhibition consists of her paintings of higher plants, some lithographs of geologically interesting landscapes and her amazing geological charts. [www.amherst.edu/museums/mead/programs/2011exhib/owh/OWHcklst] These are large paintings on sheets of linen, meant for the lecture halls of Amherst where Edward Hitchcock taught. Illustrating sedimentation, caves, intrusive and igneous rock, and fossils, they were another labor of love.

Hitchcock was encouraged by the very devout Orra to leave off his Unitarian beliefs and return to the creationism of the established Congregationalist church. Although he expounded on dinosaur footprints in southern New England, and accepted Agassiz' theories of geological time depth, he opposed Darwinism till the end of his life. It was an exciting period. Naturalists were busy discovering and naming the pieces of God's Creation. But the storm clouds of new science were gathering.
Martha Gottlieb May 2011

Mushroom Poisoning due to False Morels

By Dr. Michael W. Beug, Chair North American Mycological Association Toxicology Committee

In the West, three False Morel species cause numerous poisonings each spring. One culprit is *Gyromitra esculenta*, commonly known as the "Beefsteak Morel". Another culprit is *Gyromitra montana*, commonly known as "The Walnut" and also known as the "Snow Morel." The third culprit is *Verpa bohemica*, commonly known as the "Early Morel."

All three species are widely consumed and it is often difficult to convince individuals that eating any of these mushrooms poses a potential danger. However, they all contain toxins that can result in immediate acute illness, even liver damage. So far this year I have had reports of over 54 poisonings by these three species with 12 individuals hospitalized, four with significant liver damage. Symptoms of mushroom poisoning from these mushrooms include nausea, vomiting, bloody diarrhea, abdominal pain, dizziness, headache, muscle cramps, bloating and fatigue. Abdominal pain on the right side and yellow skin from hepatitis and jaundice can occur within 48 hours and are indicative of liver damage. Failure to seek prompt treatment can lead to delirium, seizures or coma. The toxins are also carcinogenic and so pose a long-term threat that will not be immediately obvious.

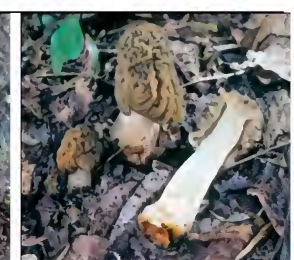
The confirmed toxin in *Gyromitra esculenta* and possibly the other two species is gyromitrin which breaks down on heating (or in the stomach) to release monomethylhydrazine, a dangerous chemical used for liquid rocket fuel. It is quite possible that the toxin levels vary from season to season and that during some years the mushrooms pose a greater potential danger than in other years. It is also well established that consuming mushrooms for several meals over a week to a month can lead to problems that would not have been evident had only one meal been consumed. Also a large meal can cause a problem while a small meal might cause no detectable adverse effect. Finally, consuming any of these mushrooms raw or only lightly cooked is certain to bring on adverse symptoms. Even true Morels can cause illness if not thoroughly cooked. Some individuals cannot tolerate true Morels even when well cooked. Sometimes they can even become sensitive to Morels after years of having consumed them with no adverse effect. A few unlucky individuals will become ill if they drink alcohol with a meal of Morels. Therefore, if you are new to eating Morels, try only a little the first time to make certain that they do not cause upset. You might also consider avoiding alcohol when consuming Morels. If you have been eating *Verpa bohemica, Gyromitra esculenta* or *Gyromitra Montana*, it is wise to cease the practice.

True Morels are meaty and delicious, similar in texture and flavor to a fine steak. They are among the choicest of edibles and well worth the effort to learn to identify and consume safely. The other three species are inferior in both taste and texture and so are simply not worth the risk. True morels have a ridged and pitted cap, with the bottom edge of the cap attached to the stem. Cut in half from top to bottom they are hollow with no cottony pith inside. *Verpa bohemica* has a cap that hangs like a skirt from the top of the stem and when cut in half the stem contains cottony pith. The two *Gyromitra* species both resemble brains and are very distinctive.

Morchella esculenta

Gyromitra Montana

Gyromitra esculenta



Verpa bohemica

CALL FOR NOMINATIONS AND APPLICATIONS! 2011

This year the **Treasurer**'s and **Second Vice President**'s three-year terms are up. The current treasurer is going to be retiring from her NAMA position.

Any interested candidate should send a **consent-to-serve** and a **short biographical description of their qualifications and**

experience to John Plischke III, First Vice President.

Anyone interested in applying for the position of **NAMA Executive Secretary** should send a **description of their qualifications and experience** to John Plischke III, First Vice President.

Anyone interested in applying for the position of **Editor of the *Mycophile*** should send a **statement of their interest and experience** to John Plischke III, First Vice President.
John may be reached at 411 Center Avenue, Greensburg, PA 15601.
Questions may be addressed to John at 724-832-0271 or Fungi01@aol.com.

Spring Mushrooms
Karen Poole

d a p o l y p o r u s s a f
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s a d d l e t h s u d m o e
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CONICA
GRAY
THIMBLECAP
SCARLET
MUSHROOM
FALSE
DEVILS
BROWN
WRINKLED
SQUAMOSUS
SADDLE
MORCHELLA
ESCULENTA
CUP
BOHEMICA

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Watsonville, CA 95076

ELECTRONIC VERSION

Myco News

Another Fungal Kingdom?

A recent article in Nature provides information on the discovery of an unknown type of fungi. The fungi found do not produce chitin-rich cell walls in any observed life cycle stage and has been tentatively named "cryptomycota". An abstract is available at: www.nature.com/nature/journal/v474/n7350/full/nature09984.html and a short article at: www.ScienceDaily.com/releases/2011/05/110511134211.htm.

Recall the *Mycophile* article about fugally infected wood helping to create Stradivarius-like tones in a newly built violin? Science Daily ran its own story titled 'Violin Fungus Genetically Decoded' at: www.ScienceDaily.com/releases/2010/07/100719124414.htm

The Illinois Mycological Association is offering two scholarships to aid student research in mycology. The scholarships are available at both the undergraduate and graduate levels. Congratulations to the IMA for its educational outreach!

Can't get into the forest? Find out how to turn city life into a mushroom hunt.

A group of Denver amateur mycologists from the Colorado Mycological Society and NAMA members have created www.UrbanMushrooms.com. The site appears to be the first dedicated exclusively to urban mushrooms. Once you start looking, you'll find them wherever you go, from bike paths to the wet carpet in your basement! Thanks to Marc Donsky, Linnea Gillamn, Jason & Manny Salzman and Penelope Zeller.

Mushroom of the Issue

In a marketing effort [www.ScienceDaily.com/releases/2011/06/1106/5080215.htm] in June to increase a greater understanding of fungi, Dr. Taylor, of the James Hutton Institute, is assisting the *Guardian* [UK] in a 'Name the Species' competition to create a common name for a rare fungus recently found in Scotland. Hopefully, this will be an effective way of increasing public appreciation in the UK of fungi with the ultimate aim of protecting them from extinction.

Dr. Michael Beug investigating mushrooms around Oregon White Oak in the Pacific Northwest has found 40 different *Cortinarius* specimens of which 39 are currently unnamed. Perhaps NAMA should consider a similar marketing/fundraising effort in seeking fanciful common names.

One unnamed *Cortinarius* species is pictured here, courtesy of Dr. Michael Beug.